overall specificity level for the entire panel is calculated by multiplying the specificity of each marker in the panel (e.g., 97% x 97% x 97% x 97% = 89% specificity for the panel). The markers were arranged on the graphs shown in Figure 3, according to the frequency of their overexpression in the cancer samples (TIMP1 was overexpressed in the highest number of cancer patients and is therefore listed first). The marker adding the most to the sensitivity of TIMP1 is ranked second. For example, the 57% sensitivity/100% specificity graph shows that TIMP1 was elevated in 19 of the 63 colorectal cancer patient plasma samples, and is thus listed first on the graph. Evaluating the samples for osteopontin yielded seven additional positive patient samples, and osteopontin is thus listed second on the graph.

The sensitivity of the panel was determined by dividing the cumulative number of samples that were positive for at least one marker by the total number of cancer samples (63).

OTHER EMBODIMENTS

Other embodiments will be evident to those of skill in the art. It should be understood that the foregoing detailed description is provided for clarity only and is merely exemplary. The spirit and scope of the present invention are not limited to the above examples, but are encompassed by the following claims.

CLAIMS

1. A method of diagnosing colon cancer in an individual comprising:

(a) obtaining a serum sample from said individual; and

(b) detecting the presence of TIMP1 in said sample, wherein the presence of Reg1α in said sample is indicative of colon cancer in said individual.

2. The method of claim 1, wherein said step of detecting comprises:

(a) contacting said serum sample with a polypeptide ligand which is capable of binding to TIMP1under conditions which permit said polypeptide ligand to bind to TIMP1; and

(b) detecting the binding of said polypeptide ligand to TIMP1, wherein detection of binding is indicative of the presence of TIMP1in said sample.

3. The method of claim 2, wherein said polypeptide ligand is an antibody.

4. The method of claim 2, wherein said polypeptide ligand comprises a detectable label.

5. The method of claim 1, wherein said individual is a human.

6. A method of diagnosing colon cancer in an individual comprising:

(a) obtaining a serum sample from said individual; and

(b) detecting the presence of TIMP1and at least one other colon cancer specific marker in said sample, wherein the presence of TIMP1and said at least one other colon cancer-specific marker is indicative of colon cancer in said individual.

7. The method of claim 6, wherein said colon cancer-specific marker is selected from the group consisting of the nucleic acid molecules of SEQ ID Nos 1, 3, 5-71, the polypeptide molecules of SEQ ID Nos 2, 4, 72-138, CA 19-9, CA 72-4, TF, sTn, Tn, CA 50, CA 549, CA 242, LASA, and Du-PAN 1 - 5.

8. The method of claim 6, wherein said step of detecting comprises:

(a) contacting said serum sample with a first polypeptide ligand which is capable of binding to TIMP1and a second polypeptide ligand which is capable of binding to said colon cancer-specific marker, under conditions which permit said first and second polypeptide ligands to bind to TIMP1and said colon cancer-specific marker, respectively; and

(b) detecting the binding of said first polypeptide ligand to TIMP1and said second polypeptide ligand to said colon cancer-specific marker, wherein detection of binding is indicative of the presence of TIMP1and said colon cancer-specific marker in said sample.

9. The method of claim 8, wherein said first and second polypeptide ligand are each an antibody.

10. The method of claim 8, wherein said first and second polypeptide ligand comprises a detectable label.

11. The method of claim 6, wherein said individual is a human.

12. A method of diagnosing colon cancer in an individual comprising:

(a) obtaining a serum sample from an individual; and

(b) detecting the presence of a nucleic acid molecule which encodes TIMP1in said sample, wherein the presence of TIMP1of said nucleic acid molecule in said sample is indicative of colon cancer in said individual.

13. A method of diagnosing colon cancer in an individual comprising:

(a) obtaining a serum sample from an individual; and

(b) detecting the presence of a nucleic acid molecule which encodes TIMP1and at least one other nucleic acid molecule which encodes at least one other colon cancer-specific marker in said sample, wherein the presence of said nucleic acid sequence encoding TIMP1and said nucleic acid sequence encoding said at least one other colon cancer-specific marker is indicative of colon cancer in said individual.

14. The method of claim 13, wherein said colon cancer specific marker is selected from the group consisting of SEQ ID Nos 1, 3, 5-71, the polypeptide molecules of SEQ ID Nos 2, 4, 72-138, CA 19-9, CA 72-4, TF, sTn, Tn, CA 50, CA 549, CA 242, LASA, and Du-PAN 1 - 5.

15. A method of diagnosing colon cancer in an individual comprising:

(a) obtaining a serum sample from said individual; and

(b) detecting the presence of Reg1α in said sample, wherein the presence of Reg1α in said sample is indicative of colon cancer in said individual.

16. The method of claim 15, wherein said step of detecting comprises:

(a) contacting said serum sample with a polypeptide ligand which is capable of binding to Reg1α under conditions which permit said polypeptide ligand to bind to Reg1α; and

(b) detecting the binding of said polypeptide ligand to Reg1α, wherein detection of binding is indicative of the presence of Reg1α in said sample.

17. The method of claim 16, wherein said polypeptide ligand is an antibody.

18. The method of claim 16, wherein said polypeptide ligand comprises a detectable label.

19. The method of claim 15, wherein said individual is a human.

20. A method of diagnosing colon cancer in an individual comprising:

(a) obtaining a serum sample from said individual; and

(b) detecting the presence of Reg1α and at least one other colon cancer specific marker in said sample, wherein the presence of Reg1α and said at least one other colon cancer-specific marker is indicative of colon cancer in said individual.

21. The method of claim 20, wherein said colon cancer-specific marker is selected from the group consisting of the nucleic acid molecules of SEQ ID Nos 1, 3, 5-71, the polypeptide molecules of SEQ ID Nos 2, 4, 72-138, CA 19-9, CA 72-4, TF, sTn, Tn, CA 50, CA 549, CA 242, LASA, and Du-PAN 1 - 5.

22. The method of claim 20, wherein said step of detecting comprises:

(a) contacting said serum sample with a first polypeptide ligand which is capable of binding to Reg1α and a second polypeptide ligand which is capable of binding to said colon cancer-specific marker, under conditions which permit said first and second polypeptide ligands to bind to Reg1α and said colon cancer-specific marker, respectively; and

(b) detecting the binding of said first polypeptide ligand to Reg1α and said second polypeptide ligand to said colon cancer-specific marker, wherein detection of binding is indicative of the presence of Reg1α and said colon cancer-specific marker in said sample.

23. The method of claim 22, wherein said first and second polypeptide ligand are each an antibody.

24. The method of claim 22, wherein said first and second polypeptide ligand comprises a detectable label.

25. The method of claim 20, wherein said individual is a human.

26. A method of diagnosing colon cancer in an individual comprising:

(a) obtaining a serum sample from an individual; and

(b) detecting the presence of a nucleic acid molecule which encodes Reg1α in said sample, wherein the presence of Reg1α of said nucleic acid molecule in said sample is indicative of colon cancer in said individual.

27. A method of diagnosing colon cancer in an individual comprising:

(a) obtaining a serum sample from an individual; and

(b) detecting the presence of a nucleic acid molecule which encodes Reg1α and at least one other nucleic acid molecule which encodes at least one other colon cancer-specific marker in said sample, wherein the presence of said nucleic acid sequence encoding Reg1α and said nucleic acid sequence encoding said at least one other colon cancer-specific marker is indicative of colon cancer in said individual.

28. The method of claim 27, wherein said colon cancer specific marker is selected from the group consisting of SEQ ID Nos 1, 3, 5-71, the polypeptide molecules of SEQ ID Nos 2, 4, 72-138, CA 19-9, CA 72-4, TF, sTn, Tn, CA 50, CA 549, CA 242, LASA, and Du-PAN 1 - 5.